BRUHAT BENGALURU MAHANAGARA PALIKE

YELAHANKA ZONE

NAME OF WORK : IMPROVEMENTS AND ASPHALTING TO ROADS AT SHIVANAHALLI IN WARD NO.01 OF YELAHANKA SUB-DIVISION

Estimate Cost Rs. 18.00 Lakhs

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
KSRB 2-2.1 : Earth work excavation for foundation of buildings, culverts water supply, sanitary line and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m, after breaking of clods complete as per specifications, specification No, KBS 2.1(a) / 2.3.5, No.5/Item No. 2.3)								
Shivanahalli 2nd Stage	Cum							
1st Cross Road		1	68.00	0.95	0.90	58.14		
						58.14	200.34	**11648.00**
Basic Rate 189.00								
Area Weightage @ 6% 11.34								
Total 200.34								
KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregates @ 0.57cum machine mixed concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No.KBS 4.1, 4.2 (P.12/I.4.3)								
Shivanahalli 2nd Stage	Cum							
1st Cross Road		1	68.00	0.95	0.15	9.69		
						9.69	5159.02	**49991.00**
Basic Rate 4867.00								
Area Weightage @ 6% 292.02								
Total 5159.02								
KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost pf materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 -do- TMT Bars Fe 500 P.17/It.No.4.46.2								
	tonne	No.of Bars	Width/Lengt	Rmtr	Kg/Rmtr	Total in Kg		
12mm dia main bar spacing at 150mm c/c	1	453	2.10	952.00	0.888	845.38		
10mm dia dist bar spacing at 150mm c/c	1	14	68.00	952.00	0.617	587.38		
					in Kg	1432.76		
					in Qtl	14.3276		
					in tonne	**1.4328**	59413.00	**85125.00**
Basic Rate 56050.00								
Area Weightage @ 6% 3363.00								
Total 59413.00								
KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.21 (P.15 / I.4.31)								
	Sqm							
		2x2	68.00		0.60	163.20		

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
						163.20	310.58	50687.00
Basic Rate 293.00								
Area Weightage @ 6% 17.58								
Total 310.58								
Providing & laying in position reinforced cement concrete of Design mix M20 with OPC cement @ 320kgs , with 20mm and down size graded granite metal,coarseaggregated @ 0.69cum ,and fine aggregated @ 0.460cum, with superplastisiser @ 3lts confirming to IS9103-1999 Reaffirmed -2008 machine mixed concrete laid in layers not exceeding 15 crns thick, vibrated for all works in foundation for footings,pedestals,retaining walls, return walls, walls (any thickness) including attached plasters, columns, piers, abutments, pillars, posts,struts, buttresses, bed blocks, anchor blocks, plinths etc.,including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.specifications No.KBS 4.1,4.6 (P.No.13/ I.No.4.11)								
	Cum							
for drain wall		2	68.00	0.15	0.60	12.24		
bed		1	68.00	0.95	0.15	9.69		
						21.93	6371.66	139731.00
Basic Rate 6011.00								
Area Weightage @ 6% 360.66								
Total 6371.66								
Providing and fixing **RCC precast Slabs of 0.10 m thick of CC 1:2:4 with 20 mm** and down size graded granite metal , machine mixed , including cost of all material , labour , HOM of Machinery , curing complete								
Shivanahalli 2nd Stage	Sqm							
1st Cross Road		1	68.00	0.90		61.20		
						61.20	2100.00	128520.00
Data Rate **2100.00**								
KSRB 2-1.1 Earthwork in surface excavation in **ordinary soil** for **levelling and lowering** the ground manually (other than foundation of buildings, culverts, road drains and trenches of pipe lines and cables) and removing the excavated stuff to a distance not exceeding 50m and lift upto 1.5m, excavated surface leveled and neatly dressed, disposed earth to be leveled after breaking of clods and neatly dressed as per specifications. specification No. KBS 2.1 (a) / 2.3.1 (P.5/I.2.1)								
Shivanahalli	Cum							
1st Cross Road (RC Portion)		1	70.00	1.50	0.45	47.25		
2nd Cross Road (New Road)		1	80.00	5.50	0.45	198.00		
Main Road (RC Portion)		1	70.00	2.60	0.40	72.80		
Cross Cuttings		6	6.00	0.60	0.40	8.64		
						326.69	166.42	54368.00
Basic Rate 157.00								
Area Weightage @ 6% 9.42								
Total 166.42								
KSRRB M100-1 Loading and Unloading of Stone Boulder / Stone aggregate /sand/kaner/ Moorum KSRRB M100-1 Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip complete as per specifications MORTH -100/ Chapter 1 (Page No.133/ Item No 17.1)								
	Cum							
			Qty Vide Item No.1+7			384.83	100.00	38483.00

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Average Weight of Earth 1.28 Tonne/Km								
Basic Rate Lead Charges for 10.00 Kms (2.50X1.28X10.00)	32.00							
Add loading and unloading Item No 17.1)	68.00							
Total	**100.00**							

Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and ./or compressed air to recieve bituminous treatment including cost of all materials, labour, HOM of machineries complete as per Specifications. (P.No.157 & I.No.21.2)

	Sqm							
1st Cross Road		1	70.00	6.00		420.00		
Main Road		1	70.00	8.00		560.00		
				Deduct Road cut portions		-348.88		
						631.12	3.18	**2007.00**
Basic Rate	3.00							
Area Weightage @ 6%	0.18							
Total	**3.18**							

KSRRB M400-6.1 Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material (P.No.155 It.No.20.4.2)

Shivanahalli	Cum							
1st Cross Road (RC Portion)		1	70.00	1.50	0.15	15.75		
2nd Cross Road (New Road)		1	80.00	5.50	0.15	66.00		
Main Road (RC Portion)		1	70.00	2.60	0.15	27.30		
Cross Cuttings		6	6.00	0.60	0.15	3.24		
						112.29	1665.26	**186992.00**
Basic Rate	1571.00							
Area Weightage @ 6%	94.26							
Total	**1665.26**							

KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I.No.20.18)

Shivanahalli	Cum					
1st Cross Road (RC Portion)		1	70.00	1.50	0.225	23.63
2nd Cross Road (New Road)		1	80.00	5.50	0.225	99.00
Main Road (RC Portion)		1	70.00	2.60	0.225	40.95
Cross Cuttings		6	6.00	0.60	0.225	4.86

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Potholes		2	1.20	1.20	0.15	0.43		
						168.87	1768.08	**298570.00**

Basic Rate 1668.00
Area Weightage @ 6% 100.08
Total 1768.08

Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No 502 (P.No.160/It No.21.6)

Shivanahalli	Cum						
1st Cross Road (RC Portion)		1	70.00	1.50		105.00	
2nd Cross Road (New Road)		1	80.00	5.50		440.00	
Main Road (RC Portion)		1	70.00	2.60		182.00	
Cross Cuttings		6	6.00	0.60		21.60	
Potholes		2	1.20	1.20		2.88	
						751.48	27.56	**20711.00**

Basic Rate 26.00
Area Weightage @ 6% 1.56
Total 27.56

*SRRB M500- 15 Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No 507 (P.No 162&163 It.No.21.17.6)

	Cum						
1st Cross Road (RC Portion)		1	70.00	1.50	0.050	5.25	
2nd Cross Road (New Road)		1	80.00	5.50	0.050	22.00	
Main Road (RC Portion)		1	70.00	2.60	0.050	9.10	
Cross Cuttings		6	6.00	0.60	0.050	1.08	
profile correction	15% of Qty Vide Item No 9			94.67	0.050	4.73	
						42.16	6435.26	**271332.00**

Basic Rate 6071.00
Area Weightage @ 6% 364.26
Total 6435.26

*SRRB 500-7 Providing and **applying tack coat with bitumen emulsion** using 80/100 grade bitumen (VG20) on the prepared black toped suface at 2.5kg per 10 sqm. heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications.(P.No.160 & I.No.21.7)

	Sqm					
1st Cross Road		1	70.00	6.00	420.00	
2nd Cross Road (New Road)		1	80.00	5.50	440.00	
Main Road		1	70.00	8.00	560.00	

Description of Item	Unit	No.	L	B	D	Qty.	Rate	Amount
Basic Rate	14.00					1420.00	14.84	21073.00
Area Weightage @ 8 %	1.12					0.84		
Total	15.12					14.84		

KSRRB M500- 15. Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications MORTH Specification No.509 (P.No.164 Item No.21.22.6)

	Cum							
1st Cross Road		1	70.00	6.00	0.040	16.80		
2nd Cross Road (New Road)		1	80.00	5.50	0.040	17.60		
Main Road		1	70.00	8.00	0.040	22.40		
						56.80	7407.72	420758.00
Basic Rate	6859.00							
Area Weightage @ 8%	548.72							
Total	7407.72							

KSRRB M800-13: Road marking with hot applied thermoplastic compound with reflect rising glass beads on bituminous surface- providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface to level, uniform and free from streaks and holes complete as per specifications MORTH specification No. 803, No. 1974 (P.No.181 & I.No.24.15)

	Sqm							
		2.5	220	0.10		55.00		
						55.00	473.04	26017.00
Basic Rate	438.00							
Area Weightage @ 8 %	35.04							
Total	473.04							
Miscellaneous and unforeseen charges	LS							596.00
						Grand Total Amount		1800000.00

(Rupees Eighteen Lakhs Only)

TECHNICALLY SANCTIONED FOR Rs. 18.00 Lakhs
Rupees Eighteen Lakhs
Under P.1771 2016-17
Registered as CE ( ) No. 9 9
Subject to conditions contained in enclosed memo EE ( ) No. /9/
Dt. CE/TS/46/16-17 Sanctioned
Dated 16.2.2017

Executive Engineer

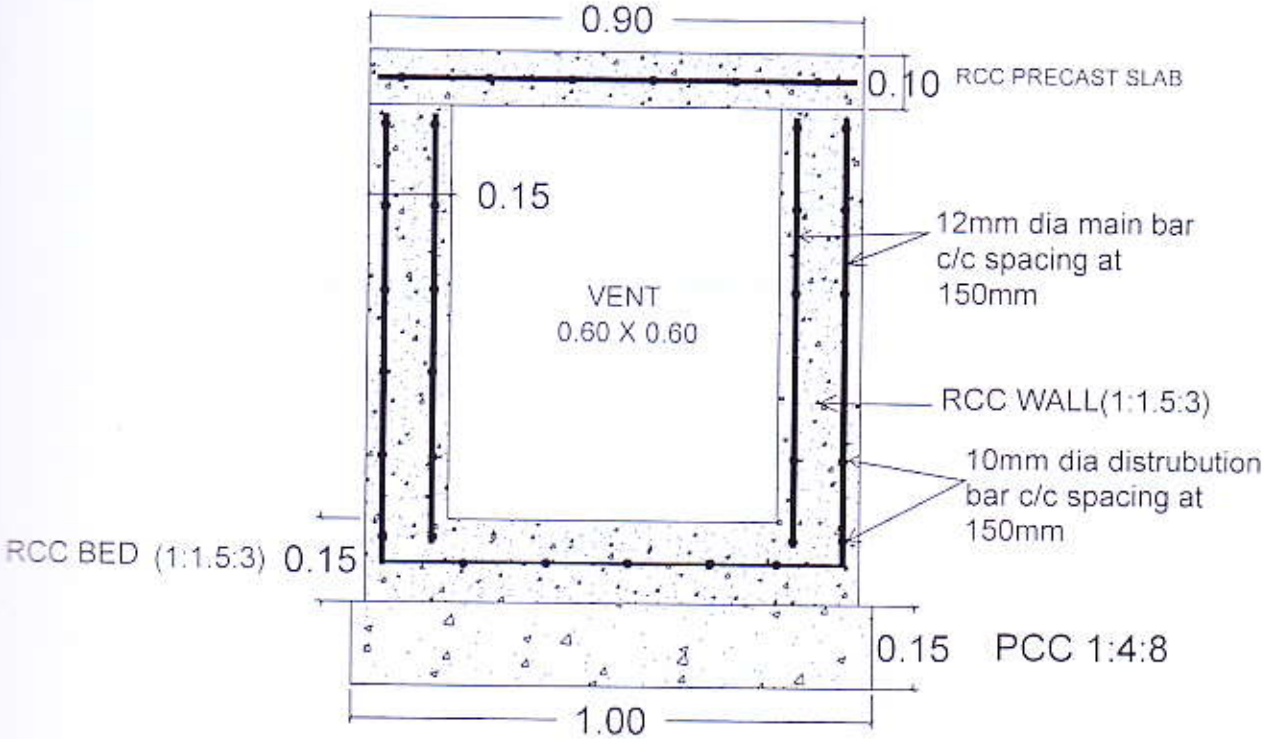
The site has been inspected and the work is found to be necessary.
The rates adopted are as per PW,P IWTD SR of 2016-17
The provisions were made in this estimate are necessary and adequate.
The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.

Assistant Engineer
Ward No.01

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P

Executive Engineer
Yelahanka Division
B.B.M.P

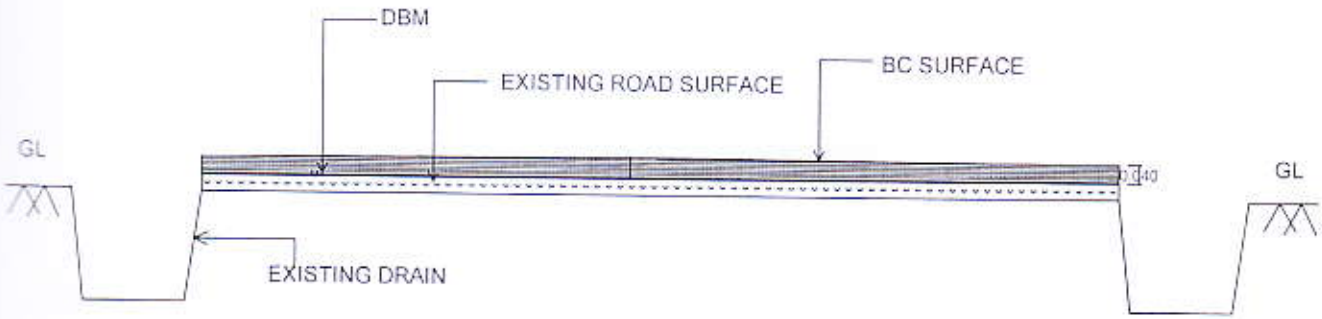
NAME OF WORK : IMPROVEMENTS AND ASPHALTING TO ROADS AT SHIVANAHALLI IN WARD NO.01 OF YELAHANKA SUB-DIVISION



CROSS SECTION OF RCC DRAIN

Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

NAME OF WORK : IMPROVEMENTS AND ASPHALTING TO ROADS AT SHIVANAHALLI IN WARD NO.01 OF YELAHANKA SUB-DIVISION



TYPICAL CROSS SECTION OF ASPHALT ROAD

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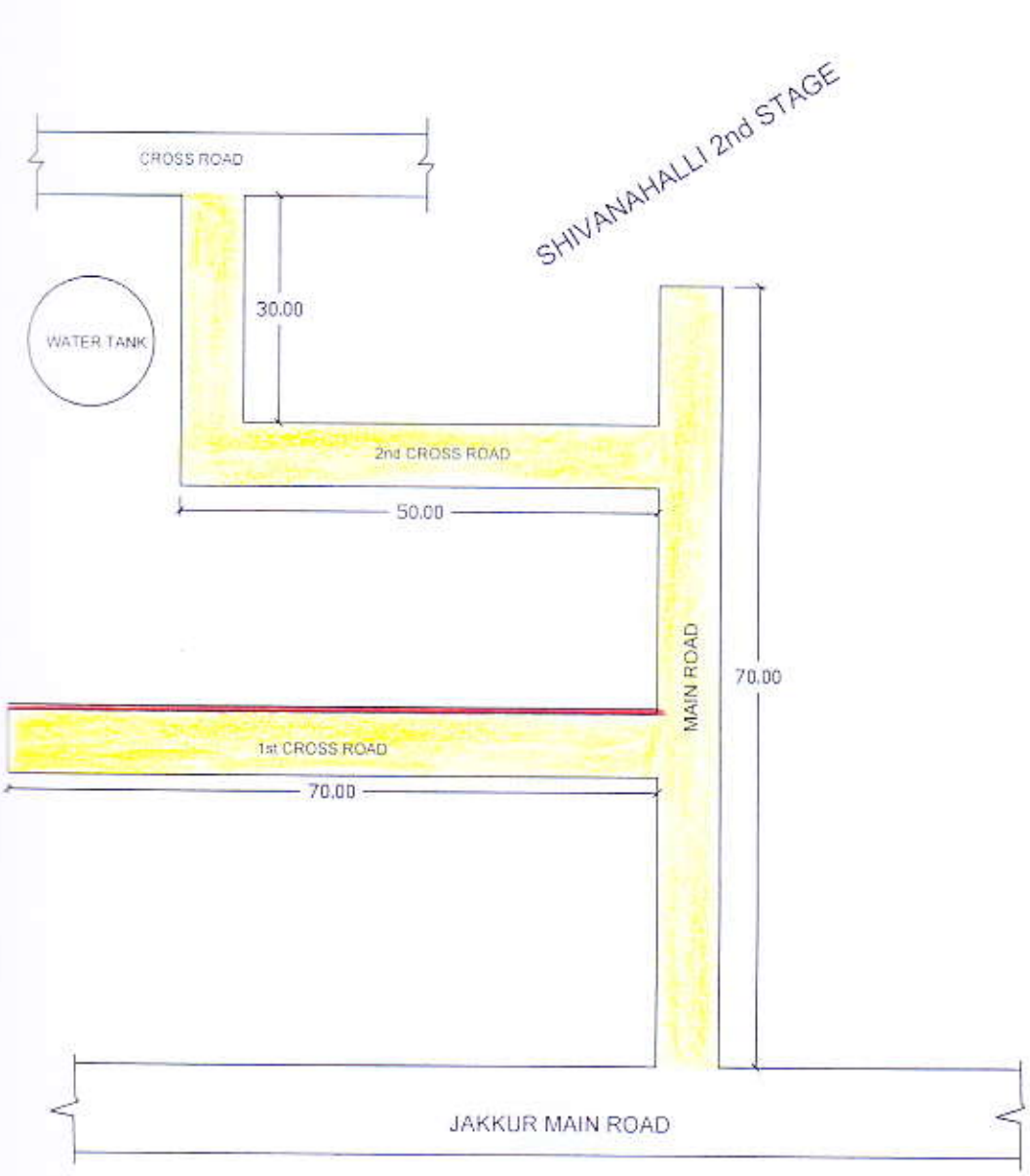
Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore

ME OF WORK: IMPROVEMENTS AND ASPHALTING TO ROADS AT SHIVANAHALLI IN WARD NO.01 OF YELAHANKA SUB-DIVISION

KEY : NOT TO SCALE



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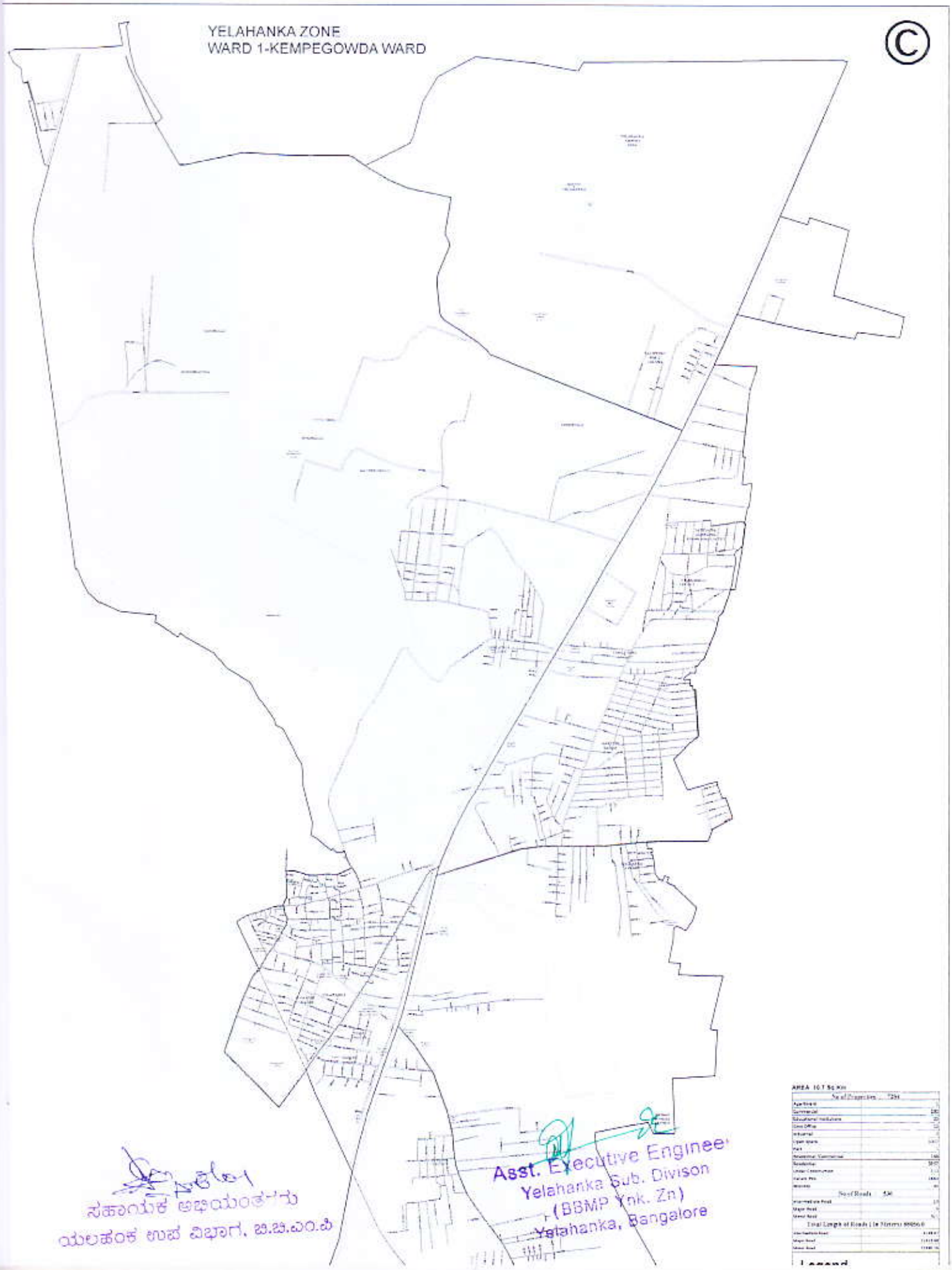
- ASPHALTING
- CC DRAIN

Assistant Engineer
Ward No.01
B.B.M.P

Assistant Executive Engineer
Yelahanka Sub-Division
B.B.M.P

YELAHANKA ZONE
WARD 1-KEMPEGOWDA WARD



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Asst. Executive Engineer
Yelahanka Sub. Divison
(BBMP Ynk. Zn)
Yelahanka, Bangalore